IN THE CLAIMS

Please substitute the following claims for the pending claims with the same numbers respectively:

Claim 1 (Currently amended): An apparatus for a scanning microscope, in particular a scanning force microscope, comprising a measurement probe which defines a near field, and having a scanning unit which allows the measurement probe to move relative to a sample in all three spatial directions, in conjunction with a mass spectrometer with an ionization unit, an extraction unit and an analysis unit, ~~characterized in that~~ wherein the measurement probe has a hollow tip so that the near field of the measurement probe can be used by the ionization unit in such a way that ions are formed only in the near field of the measurement probe, and the shape of the measurement probe allows an essentially axially symmetrical field distribution of the extraction unit with respect to the axis of the analysis unit.

Claim 2 (Currently amended): The apparatus as claimed in claim 1, ~~characterized in that~~ wherein the measurement probe is a cantilever.

Claim 3 (Currently amended): The apparatus as claimed in claim 1 ~~or 2, characterized in that~~ , wherein the sample can be moved in all three spatial directions by means of the scanning unit.

Claim 4 (Currently amended): The apparatus as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the ionization unit has a laser, light beams which are indicated by the laser are focused off-axis and are then deflected by means of a mirror in an axial direction, with the mirror having an axial hole which allows the ions to pass through to the analysis unit.

Claim 5 (Currently amended): The apparatus as claimed in ~~one of claims 1 to 3, characterized in that~~ claim 1, wherein the ionization unit has a laser, and light beams which are indicated by the laser are deflected by means of a mirror in an axial direction and are then focused by means of a focusing device, with the mirror and the focusing device each having an axial hole which allows the ions to pass through to the analysis unit.

Claim 6 (Currently amended): The apparatus as claimed in

~~one of claims 1 to 3, characterized in that~~ claim 1, wherein the ionization unit has a laser, and light beams which are indicated by the laser are passed to the measurement probe and cause ionization in the near field of the measurement probe by means of field amplification.

Claim 7 (Original): A method for high-resolution examination of a measurement sample using a combined scanning probe microscope, in particular a scanning force microscope, wherein the scanning probe microscope is first of all used to record an image of the measurement sample, in particular of the topography of the measurement sample, and wherein a mass spectrometer is then used for destructive, chemical characterization of at least subareas of sections of the measurement sample which are covered by the image.

Claim 8 (Currently amended): The method as claimed in claim 7, ~~characterized in that~~ wherein the selected areas are chosen successively such that the entire area imaged by the scanning probe microscope is analyzed, thus additionally resulting in a chemical image of the sample.

Claim 9 (Currently amended): The method as claimed in ~~one~~

~~of claims 7 or 8, characterized in that~~ claim 7, wherein further ablation of the measurement sample leads to high-resolution depth information.

Claim 10 (Currently amended): The method as claimed in ~~one of claims 7 to 9, characterized in that~~ claim 7, wherein the distance between two points for ionization can be chosen by analysis of the area ablated by an ionization process, such that this leads to uniform ablation or the measurement sample.

Claim 11 (Currently amended): The method as claimed in ~~one of claims 7 to 10, characterized in that~~ claim 7, wherein the information from scanning probe microscopy and from mass spectrometry can be compared with high lateral resolution.